

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Figure 1. Figure 1 has been amended to add a "PRIOR ART" legend.

REMARKS

The application has been amended and is believed to be in condition for allowance.

Claims 9-15 are new and find support in the originally filed application. See Figures 2-8 and 13-14.

Figure 1 is amended to add a prior art legend.

The specification has been amended.

The claims have been amended responsive to the formal objections and as suggested.

Claim 1 is rejected as anticipated by KONG 2003/0128674.

Claims 2 and 6-7 are rejected as anticipated by KHAN et al. 2001/0056560.

Claims 4-5 are rejected as obvious over KONG in view of SOUROUR et al. 6,768,727.

Claims 3 and 8-9 are rejected as obvious over KHAN in view of KONG.

The originally filed claims have been amended and are believed to patentably recite the present invention. The new claims are also believed to patentably recite the present invention.

Reconsideration and allowance of all the claims are therefore respectfully requested.

In page 3 of the Official Action, it is said that KONG discloses a system for an adaptive resending request control in a

mobile radio communications having a reception side (Figures 2 and 4) and a transmission side (Figure 3).

KONG discloses that "The apparatus described at Fig. 2 can be implemented either at a BS or MS for sending the message MSG." See page 3, 44th paragraph. As shown in Figure 2 of KONG, the apparatus comprises a receiver 211, a decision block 213 and a transmitter 215.

Further, KONG discloses that "Fig. 4 illustrates the structure of a reception device according to an embodiment of the present invention. The reception device is controlled by a decision block 213 having the same structure as that shown in Fig. 2." See page 5, 63th paragraph.

Still further, KONG discloses that "Fig. 3 is a block diagram illustrating a structure of a forward link traffic channel transmission device" (See page 3, 45th paragraph) and that the transmission device is controlled by the decision block 213 (See page 3, 46th paragraph and page 4, 50th and 51st paragraphs).

Thus, the transmission device as shown in Figure 3 and reception device as shown in Figure 2, respectively, and the apparatus described at Figure 2 is implemented either at a BS or MS.

In contrast, the present invention provides data communication carried out between a reception side and a transmission side. However, KONG does not disclose data

communication between the transmitter 215 and the receiver 211. Consequently, KONG does not disclose the system of the present invention.

This is discussed below, in more detail and with reference to the claims.

Claim 1

Consider claim 1 with reference to Figures 2 and 7-8, reproduced below.

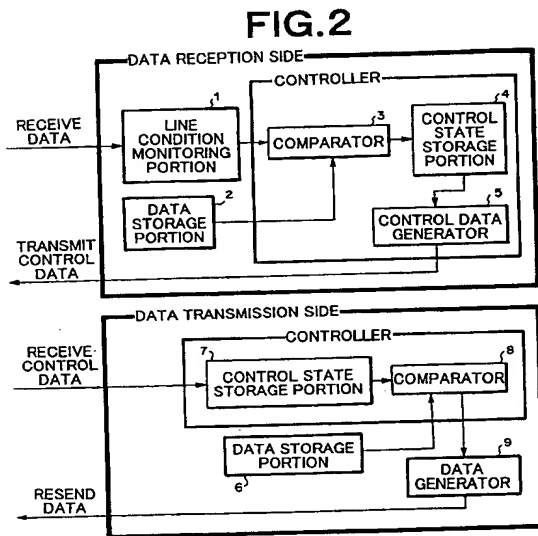


FIG. 7
 ASSOCIATION TABLE STORED IN
 DATA STORAGE PORTION 2

SIR	CODING RATE	STATE
$8\text{dB} < \text{SIR}$	7/8	S11
$7\text{dB} \leq \text{SIR} < 8\text{dB}$	3/4	S12
$\text{SIR} < 7\text{dB}$	1/2	S13

8-VALUE SOFT DECISION
 VITERBI DECODING

FIG. 8
 ASSOCIATION TABLE STORED IN
 DATA STORAGE PORTION 6

CODING RATE	STATE
7/8	S11
3/4	S12
1/2	S13

Claim 1 now recites that the measuring means measures a line state of a line of a radio section and provides line state measurement results. See line condition monitoring portion 1. Next recited is a first data storage portion storing data of control states. See data storage portion 2 and Figure 7. These are not disclosed in the prior art.

Claim 1 is amended to recite a comparator receiving the measurement results and reading the data of the control states from the first data storage portion to select an optimum control state of a coding rate in correspondence with the measurement results on a basis of the read data of the control states stored in the first data storage portion. These features are not disclosed in the prior art.

On the transmission side, there is now recited a second data storage portion storing data of control states. See data storage portion 6 and Figure 8. This is not found in the prior art.

Also recited is second selecting means receiving the control data and reading the data of the control states from the second data storage portion for selecting the coding rate in correspondence with the received control data on the basis of the received control data and the read data of the control states stored in the second data storage portion. These features are not disclosed in the prior art.

Thus, although KONG may disclose to monitor line condition, KONG does not disclose the combination of features now recited.

Therefore claim 1 is believed patentable.

New claims 10 and 14 are also believed patentable. Take claim 10 which recites that 1) the measuring means measures the line state by using one or both of SIR measurement and packet

arrival rate measurement, the packet arrival rate defined as a ratio of a number of error-correctable packets arriving at the data reception side to a number of packets transmitted for a fixed time from the data transmission side. Further, claim 10 recites that 2) the control states stored in the first data storage portion comprises plural SIR ranges, each SIR range stored with a corresponding coding rate and a corresponding control state, and 3) the control states stored in the second data storage portion comprises plural coding rates, each coding rate stored with a corresponding control state. Claim 14 is more specific.

These features of claims 10 and 14 are also not found in KONG.

Claim 2

Next consider claim 2 with reference to Figures 3 and 13-14, reproduced below.

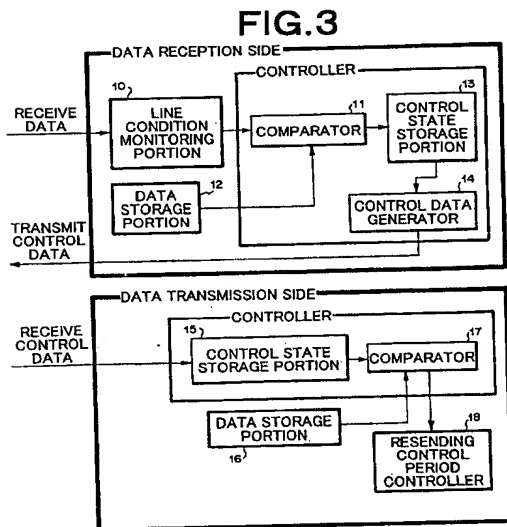


FIG.13
ASSOCIATION TABLE STORED IN DATA RECORDING PORTION 12

SIR	PACKET ARRIVAL RATE	PACKET RESENDING CONTROL PERIOD	STATE
$10\text{dB} < \text{SIR}$	$p \leq 9 \times 10^{-1}$	10msec	S21
$5\text{dB} \leq \text{SIR} < 10\text{dB}$	$7 \times 10^{-1} \leq p < 9 \times 10^{-1}$	7msec	S22
$\text{SIR} < 5\text{dB}$	$p < 7 \times 10^{-1}$	5msec	S23

FIG.14
ASSOCIATION TABLE STORED IN DATA STORAGE PORTION 16

PACKET RESENDING PERIOD	STATE
10msec	S21
7msec	S22
5msec	S23

As amended, claim 2 recites the transmission side comprising a first data storage portion storing data of control states. See data storage portion 12 and Figure 13. These are not found in KHAN.

The claim now also recites a comparator receiving the measurement results and reading the data of the control states from the first data storage portion to select an optimum control state of a packet resending control period in correspondence with the measurement results on a basis of the read data of the control states stored in the first data storage portion. These recitations are not found in KHAN.

Claim 2 also recites the transmission side comprising a second data storage portion storing data of control states. See data storage portion 16 and Figure 14. These are not found in KHAN.

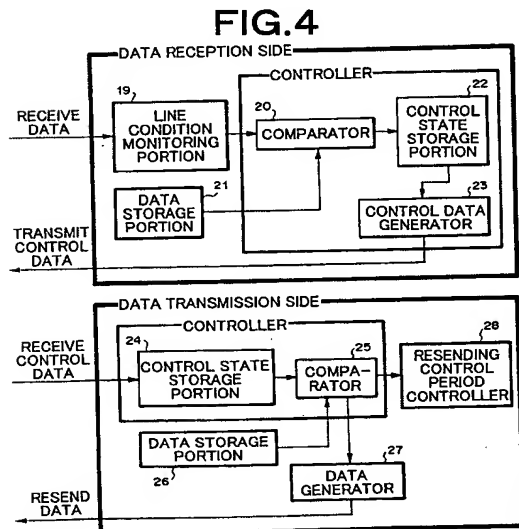
As amended, there is recited second selecting means receiving the control data and reading the data of the control states from the second data storage portion for selecting the packet resending control period in correspondence with the received control data on the basis of the received control data and the read data of the control states stored in the second data storage portion. These recitations are not found in KHAN.

In view of these new and amended recitations being novel and non-obvious over KHAN, reconsideration and allowance of claim 2 are respectfully requested.

New 11 recites that the measuring means measures the line state by using one or both of SIR measurement and packet arrival rate measurement, the packet arrival rate defined as a ratio of a number of error-correctable packets arriving at the data reception side to a number of packets transmitted for a fixed time from the data transmission side. Further, there is recited that 1) the control states stored in the first data storage portion comprises plural SIR ranges, each SIR range stored with a corresponding packet arrival rate, a packet resending control period, and a corresponding control state, and 2) the control states stored in the second data storage portion comprises plural packet resending periods, each packet resending period stored with a corresponding control state.

This combination of features is also novel and non-obvious and is therefore believed patentable.

Claim 3



Amended claim 3 recites a reception side first data storage portion storing data of control states. See data storage portion 21. AS discussed above with respect to claims 1 and 2, neither of the applied references are believed to teach such a storing of data of control states.

Further, claim 3 now recites a comparator receiving the measurement results and reading the data of the control states from the first data storage portion to select a control state of a coding rate and packet resending control period in correspondence with the measurement results on a basis of the read data of the control states stored in the first data storage portion. These features are also believed missing from both references.

The claim recites, on the transmission side, a second data storage portion storing data of control states. See data storage portion 26. This is not found in the applied references.

Claim 3 also now recites second selecting means receiving the control data and reading the data of the control states from the second data storage portion for selecting the coding rate and packet resending control period in correspondence with the received control data on the basis of the received control data and the read data of the control states stored in the second data storage portion. These features are not found in either of the applied references.

Accordingly, the applied references do not render obvious this claim. Reconsideration and allowance of claim 3 are respectfully requested.

Claims 12-13 are also believed patentable for the reasons discussed above.

Applicant believes that the present application is in condition for allowance and an early indication of the same is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



Roland E. Long, Jr., Reg. No. 41,949
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

REL/lk

APPENDIX:

The Appendix includes the following item:

- a Replacement Sheet for Figure 1 of the drawings